General Instructions

BEFORE leaving the factory every machine has been carefully adjusted and minutely inspected, its sewing qualities having been tested on all kinds of work, and found perfect in every respect.

Before commencing to sew be certain to oil and clean machine according to instructions on pages two, three and four.

After using the machine always see that it is well cleaned before putting it away.

Do not tamper with the adjustments of the machine; serious trouble is almost sure to result from any unnecessary meddling with the working parts.

Do not attempt to use the attachments until you can manage the machine with ease on plain sewing.

In sewing where special elasticity is required, as on bias seams or very elastic material, hold the work back slightly, to keep the cloth stretched while being sewed.

The belt should be only tight enough to move the machine without slipping. If it is too tight it will make the machine run hard. Should it become too loose, a piece must be cut out near the belt hook and another hole made and hooked again.

Machine not working properly generally is caused by the following: The thread being too coarse or fine for the needle, the needle being bent or blunted, poor thread. *See that the needle is perfectly straight and that it is pushed up as far as it will go into the needle bar. It should pass nearly through the center of the needle plate hole when properly set.*

Should the machine miss stitches in running off from a thick seam, hold the cloth back slightly to keep it straight and to prevent its rising up with the needle. In using slack twisted or uneven silk should it become frayed or roughened, the needle is too fine, or has a hook upon its point caused by striking the needle plate.

This machine runs toward you. Do not run it backwards under any circumstances.

To turn a corner. Stop the machine with the needle in the cloth, after it has been down and come partly up. Then lift the presser foot and turn the work in the direction desired, using the needle as a pivot.

The presser foot must never be left down on the feed when the machine is running unless there is cloth between, as the sharp teeth of the feed will injure the bottom of the presser foot.

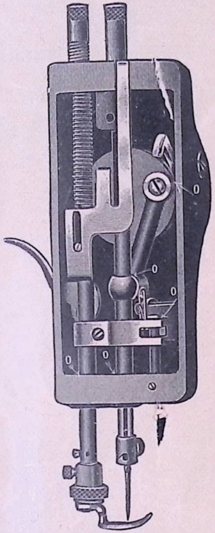
When ordering needles or parts or supplies of any kind for this machine, always give full name and number of the machine. This number will be found stamped on bed plate to the left of the stitch regulator.

OILING THE MACHINE

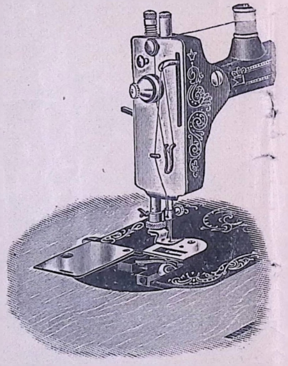
OILING FACE PLATE PARTS

See Figure 1

TO remove the face plate remove thumb screw which holds plate to arm of machine. Oil parts marked by letter (O) in Fig. 1, being sure not to overlook any of them. Oil freely but not too liberally, otherwise the oil will drip down and soil the goods. After oiling wipe up superfluous oil and replace face plate. **Oil the machine every day you use it.**



(Figure 1)



(Figure 2)

OILING THE HOOK RACE

See Figure 2

THE accompanying illustration shows the bobbin case cover open to permit oiling of the hook race, full directions for the same being given on the following page. After oiling these parts be sure and close the bobbin case cover up tight.

If Bobbin Case Cover works loose and will not stay tightly closed, insert screw driver in slot in cover (see Fig. 2—page 2) and expand it sufficiently to cause a tight fit.

OILING THE MACHINE (Continued)

(See Figure 3)

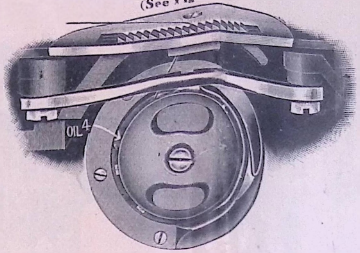


Figure 3

THE above is a full size view of the hook race showing the place for oiling, the same being indicated by an arrow and the following: "Oil 4." A few drops of oil at this point will suffice. **Oil the machine every day you use it.**

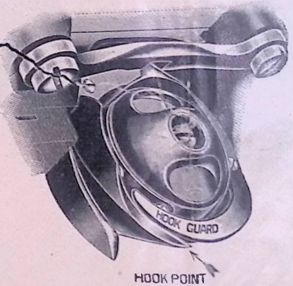
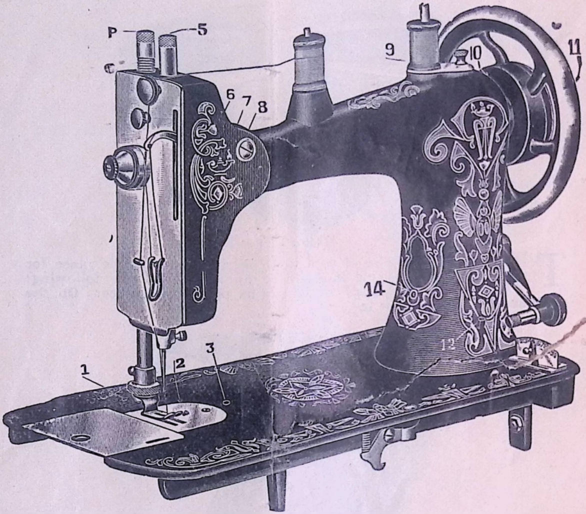


Figure G

THE HOOK POINT

The Hook Guard

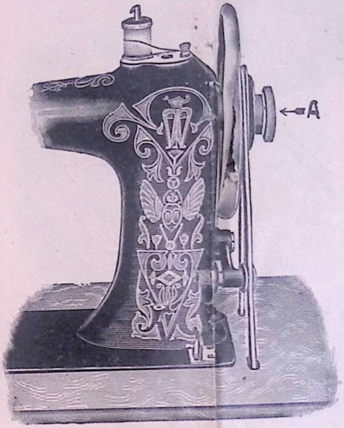
THE hook guard is attached to the hook with two screws and the point of the guard moves in an opposite direction from that of the point of the hook on the outside of same. This guard throws the thread of the bobbin outside of the line of the point of the hook, obviating the possibility of the thread becoming tangled and stopping the machine, being also exceedingly useful in assisting the machine to do excellent work on all classes of goods and with any thickness of thread, from 150 to 20 including also silk thread.



(Figure 4)

TURN the hand wheel until the takeup goes down, and then up until it comes level with the top of the tension pulley. (See point marked "P" on accompanying illustration). Let the machine stand in this position and you will be able to oil every bearing in it without going to the trouble of turning back the head and removing the belt. Oil all the parts indicated by the numbers in this illustration. Do not oil so liberally that oil will drip and soil things, but be sure to oil it every day you use it.

WINDING THE BOBBIN



(Figure 5

BEFORE starting to wind the bobbin, release the hand wheel by turning the nut (letter A, figure 5) one-half turn toward you. This will permit the operation of the stand wheel and bobbin winder while the sewing mechanism of the machine stands still. Place spool on the right-hand spindle on top of arm, bringing the thread through the little guide at the right of arm near the hand wheel as shown in illustration. Then take the bobbin in the left hand and with the right hand wrap a few strands of thread around the hub. Next place the bobbin on the spindle, pushing it on as far as it will go. Raise the bobbin winder up until the lever slips into position directly in the center of the bobbin and the small pulley comes into contact with the belt. Now run the machine in the regular way toward you. When sufficient thread has been wound on the bobbin, the bobbin winder will automatically release and drop down away from the belt: then slip the filled bobbin off of the spindle.

REMOVING THE BOBBIN CASE

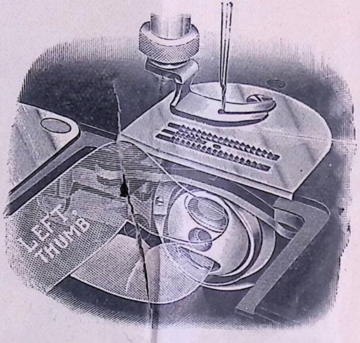


Figure 6

WITH the left hand turn the bobbin case cover to the left and back as far as it will go (see Fig 2, page 2). Then grasp the bobbin case with the thumb and finger of the left hand as seen in accompanying illustration and remove it from the hook.

THREADING THE BOBBIN CASE

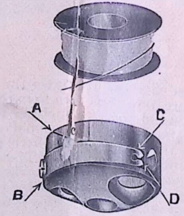


Figure 7

PLACE the bobbin in the case as shown in accompanying cut (be sure that the thread runs in the direction shown in cut); hold the bobbin case in the left hand. With the right hand draw the thread in slit in bobbin case at "A", then draw the thread under the spring and up through the forked ends of the spring between "C" and "D".

REPLACING BOBBIN CASE IN HOOK
(See Figure 8)

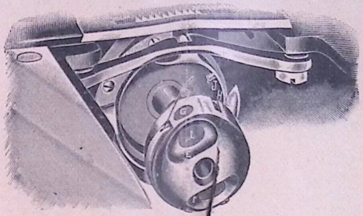
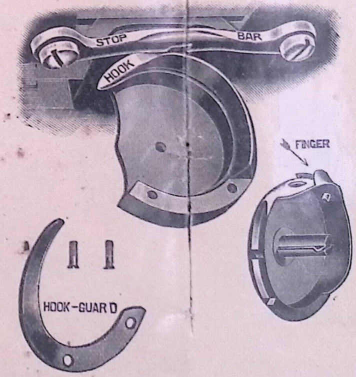


Figure 8

GRASP the bobbin case with the thumb and finger as shown in Figure "6" being careful to have the pin "J" enter the slit "H" as shown in Figure "8." The hook "G" will then be directly under the needle. Push the bobbin case as far as it will go so you can see that the bobbin at point marked "L" fits close to the inner wall of bobbin case



(Figure 9)

THE above illustration shows the different parts of the hook mechanism not assembled. If the hook race is taken out of the hook be sure to wipe it clean, and put a few drops of oil into it before screwing on the hook plate to fasten the race in place.

SIZE OF NEEDLES AND THREAD TO BE USED ON DIFFERENT MATERIALS

CLOTH	SIZE NOS. OF NEEDLES	THREADS		
		COTTON	SILK	LINEN
Finest Linens and Silks, Lawns and Nainsooks	No. 2	120 to 200	000	
Handkerchiefs, Collars, Fine Shirts, Underclothing	No. 3	90 to 110	0 to 00	
Common Muslins, Light Clothing and Quilting	No. 4	70 to 80	A to O	
Tailoring, Light Clothing and Boys Clothing	No. 5	40 to 60	A and B	90 to 100
Heavy Dressmaking, Cloakmaking and Heavy Tailoring	No. 6	30 to 36	B and C	70 to 80
Extra Heavy Work	No. 7 and No. 8	20 to 24	C and D	50 to 60

Always use the same size of thread in the bobbin as in the needle.

The number of the needle is marked upon its shank.

In ordering needles, specify N. S. Eldredge Rotary and the size wanted Use only genuine needles stamped thus on the shank, "B. Eldredge Rotary N. S."

To Set the Needle. Loosen the needle set screw, insert the needle with its flat side to the right; be sure to push the needle as far up as it will go, and secure it firmly by turning the set screw with the screw driver.

THREADING THE MACHINE—(See Figure 10)

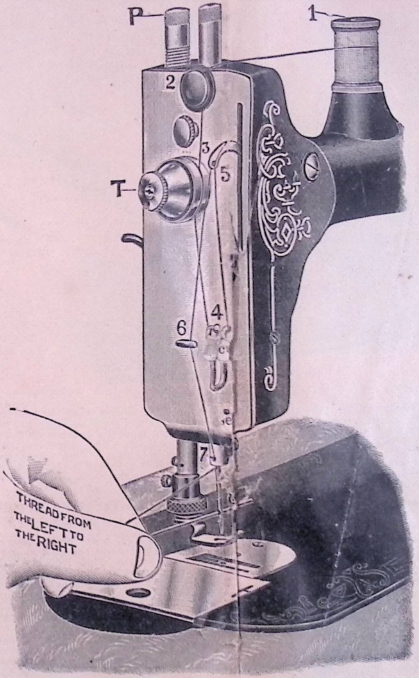


Figure 10

To thread the machine, place the spool on the spool pin (1), then into the the little slot between the discs (2), pass the thread on the side toward you between the discs, but be careful not to wrap it around them. Then straight down and once around the tension pulley (3), thence down under the auxiliary (4), up through the take-up (5), down under the thread guide (6). There is an opening in this guide at the left side to allow the thread to enter it. Then through the needle bar thread guide (7), and finally through the eye of the needle (8), threading the needle from left to right.

TO DRAW UP THE UNDER THREAD

(See Figure 11)

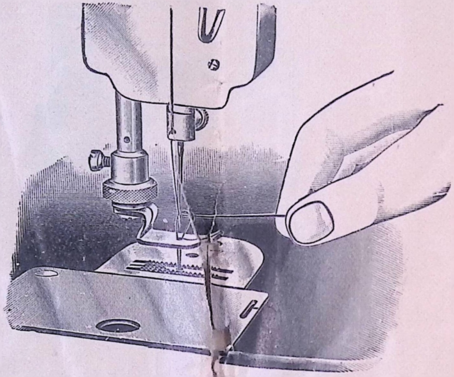
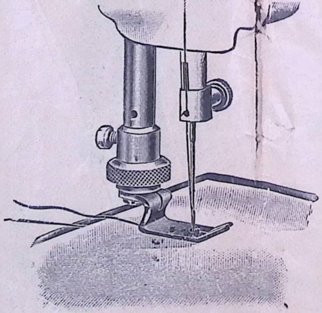


Figure 11

LET the thread extend through the needle two or three inches when the take-up is at its highest position. Now hold the end of the upper thread slack and turn the hand wheel carefully towards you while the needle goes down and the point down to the presser foot (see Fig. 11) bringing the take-up to its highest position. Then draw the upper thread and the under thread will come up with it as shown in the cut. Pass both threads under the presser foot. Keep your feet on the treadle, as foot pressure holds the take-up at its highest position. Draw up the under thread before putting the cloth under the presser foot as shown in this view, to make perfect stitches from the start.



TO COMMENCE SEWING

(See Figure 12)

HAVE both threads pass under the foot at the side, as shown in the cut, place the cloth under the presser foot, and let down the presser lifter. Start the machine by turning the hand wheel toward you.

Do not pull or push the work, the feed moves it. If it does not, the stitch regulating knob is too far towards you (see Fig. 13, page 11) or the feed is too low, (see page 11) or the pressure on the presser foot is either too heavy or too light. The pressure of the presser foot is increased by turning down, or decreased by turning up the thumb screw at the top of the presser bar. To remove the presser foot raise the lifter and loosen screw, then draw the presser foot out.

START RIGHT

Have the threads and cloth in position as shown in this cut.

(See Figure 12)

THE AUTOMATIC TENSION

IS a most important feature of this machine, as it is entirely self-acting, requiring no attention or skill on the part of the operator in adjusting the tension on either the upper or lower threads, no matter what the nature of the fabric may be, or what size or kind of thread is used. The machine, before being sent out, is tested at the factory on a very wide range of thread and fabric and under all ordinary conditions and throughout a very wide range of work. Absolutely no adjustment of the tensions is required whatsoever for such work.

If for manufacturing or special work of any sort it is desirable to alter the tensions, the lower tension can be increased or diminished by adjusting the screw which holds the tension spring on the bobbin case (Fig. 7, Page 6). Turn this screw to the right to increase tension, to the left to diminish.

The upper tension can be adjusted in the following manner: To increase the tension, turn the tension disc (marked "T" Fig. 10, Page 9) toward you; to decrease it turn the disc from you. When the desired tension is obtained, it will remain as set. This adjustment is made with the fingers, no screw driver is necessary.

CAUTION

DO not under any circumstances tamper with, or turn the stationary slotted screw on which the tension disc "T" (figure five) turns. To do so will break it and destroy the tension. If any adjustment of the automatic tension is necessary turn the disc "T'—in accordance with the instructions on this page. Never under any circumstances oil the tension.

REMOVING THE WORK

TO remove the work stop the machine with the needle out of the goods and with the take-up lever at its highest point. This is important. Raise the presser foot with the presser bar lifter located at the back of the face plate. After this is done the Automatic Tension release comes into action and releases all tension on the upper thread. With the take-up standing at the highest point and with the presser foot raised, the needle is also raised so that the eye of it is above the presser foot. As the machine stands in this position, draw the work backward away from the presser foot and then bring both threads over from the back and cut them with the blade of the thread cutter which fits into the presser bar.

TO RAISE THE FEED

FIRST remove screw holding needle plate in position and take out needle plate. Directly under the needle plate is a small screw in the center of the feed bar. Turn this screw to the right sufficiently to raise the feed to the desired position. The feed is at the proper height when it is at its highest point and the full length of the teeth show above the needle plate

THE numbers on the index plate from 1 to 0 indicate long and short stitches. By moving the indicator from you to number (1) the machine will sew six stitches to the inch, while when moved towards you to number (0) it will sew 34 stitches to the inch. You may sew any desired length stitch by moving indicator to the point on scale to suit the length of stitch wanted. The indicator automatically locks itself at all points, doing away with screws and levers to fasten it.

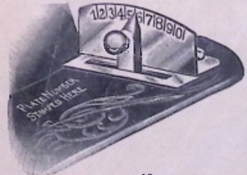


Figure 13

UNDER VIEW OF MACHINE

(See Figure 14)

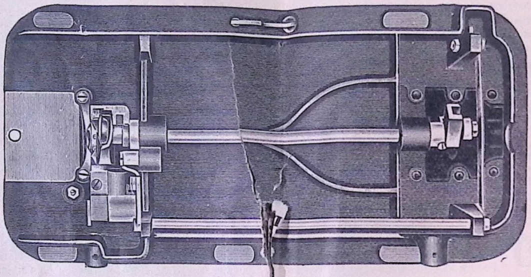


Figure 14

THE above is an under-view of your machine. It shows the feed mechanism and the simplicity, of construction which causes the machine to run so easily and quietly

TO THOROUGHLY CLEAN THE MACHINE

GRANTING that the machine has been kept thoroughly well oiled and wiped clean, it may still occur if the oil is poor, or if the machine is allowed to stand a long time without using, that the oil may dry out of the bearings or get thick and gummy, either of which will cause the machine to run very hard and may seriously injure the bearings. When a machine is in this condition, before applying fresh oil, it is well to apply kerosene to all of the bearings very liberally, meanwhile running the machine slowly by hand so as to move the working parts. Apply kerosene at intervals every few moments and until the bearings have been thoroughly flooded and all of the residue from dry oil or thick gummy oil has been thoroughly dissolved and washed out. Then run the machine slowly a few minutes to allow the kerosene to work entirely out of the bearings, then wipe the machine dry and free from all kerosene and apply fresh machine oil, when it will be found that the machine will run as light and free as ever.

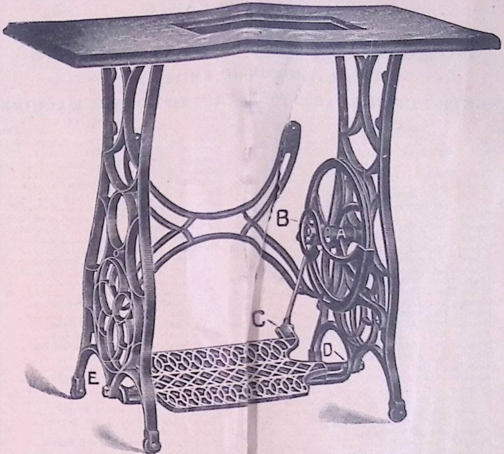


Figure No. 2

TO OIL AND ADJUST THE STAND

THE Stand should be oiled in five places, which are indicated by the letters A, B, C, D and E on the above cut. "A" marks the wheel stud bearing. "B" marks the pitman stud bearing at upper end. "C" marks the lower end of pitman. "D" and "E" mark the treadle center screw bearing.

To adjust the belt wheel, loosen the lock nut at end of wheel stud on outer side of leg. With a large screw driver, turn the wheel stud to the left until the lost motion is taken up, then tighten the lock nut securely. The adjustment should be made with the belt removed.

To adjust the pitman, turn the small screw at the top of pitman head to the right until the lost motion is taken up, or if the lost motion is at the bottom at the treadle connection, loosen one of the nuts and turn the headless center screw to the right until the required adjustment is made, then tighten the lock nut securely.

To adjust the treadle, loosen the lock nut on the outer side of leg at the bottom and turn the headless center screw to the right slightly, then tighten the lock nut.

PRICE LIST OF PARTS
FOR THE
IMPROVED ROTARY SEWING MACHINE
With Automatic Tension

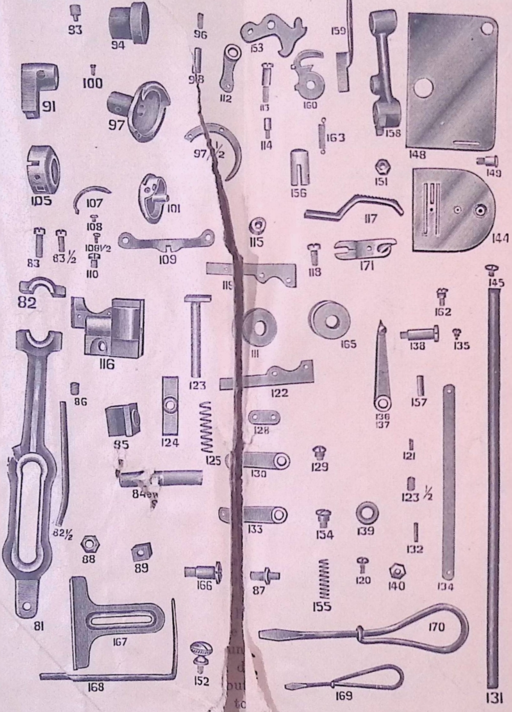
PRICE LIST OF NEW PARTS FOR IMPROVED ROTARY MACHINES

No.	Name	Price
1	Arm	$4.00
2	Arm Screw	.05
3	Bed	4.00
6	Main Shaft	1.25
7	Wheel	2.00
8	Wheel Time Screw	.05
9	Wheel Set Screw	.05
10	Loose Pulley	.60
11	Loose Pulley Spring Washer	.05
12	Loose Pulley Lock Washer	.05
13	Wheel Brake Button	.25
14	Wheel Brake Button Screw	.05
17	Main Shaft Head	.65
18	Main Shaft Head Pin	.05
19	Main Shaft Head Stud	.10
20	Needle Bar Link	.20
21	Needle Bar Link Clamp	.15
22	Needle Bar Link Clamp Screw	.05
23	Needle Bar	.40
24	Needle Bar Stop Pin	.05
25	Needle Bar Cap	.10
26	Needle Clamp	.50
27	Needle Clamp Screw	.05
28	Presser Bar	.35
29	Quilter Screw	.05
30	Presser Bar Gib	.10
31	Presser Bar Gib Staple	.05
32	Presser Bar Gib Screw	.05
33	Presser Bar Gib Stud	.05
34	Presser Bar Gib Stud Set Screw	.05
35	Tension Release Screw	.05
36	Tension Release	.20
36½	Tension Release Spring	.05
37	Presser Bar Spring	.05
38	Presser Thumb Screw	.10
40	Presser Bar Lifter	.15
41	Presser Bar Lifter Screw	.05
42	Attachment Holder Complete	.50
43	Attachment Holder H[illegible]	.12
44	Attachment Holder Hub Screw	.05
45	Attachment Holder Hub Ft. Scr.	.05
46	Attachment Holder Hub Nut	.05
47	Presser Foot	.25
48	Take Up Lever	.35
49	Take Up Lever Stud	.05
50	Take Up Lever Stud Roll	.05
51	Take Up Lever Screw	.10
51½	Take Up Lever Bushing	.10
52	Spool Pin Base	.05
53	Take Up Lever Screw Set Screw	.05
55	Spool Pin Base Screw	.05
56	Spool Pin (Rear) with Pawl	.15
57	Rear Spool Pin Pawl	.10
57½	Rear Spool Pin Pawl Pin	.05
58	Spool Pin (Front)	.05
60	Tension Disc Cloth Washer	.05
61	Face Plate Con. Assembled	1.75
62	Face Plate	.50
63	Face Plate Screw	.05
64	Top Tension Base	.15
65	Top Tension Release Disc	.10
66	Top Tension Release Disc Spring	.0
67	Top Tension Release Disc Nut	.0
68	Tension Base	
69	Tension Disc Wheel	$ .10
70	Tension Release Washer	.05
71	Tension Disc Hub	.20
72	Tension Sleeve	.15
73	Tension Disc Cloth Washer	.10
73½	Tension Release Pin	.05
74	Tension Spring	.10
74½	Tension Spring Screw	.10
75	Tension Cap	.30
76	Auxiliary Tension Head	.10
77	Auxiliary Tension Spring	.10
78	Auxiliary Tension Head Screw	.05
79	Auxiliary Thread Guide	.05
80	Thread Guide	.05
81	Main Shaft Connection	1.00
83	Main Shaft Connection Screw	.05
83½	Oil Tube Cap Screw	.05
84	Main Shaft Con. Fulcrum Stud	.20
85	Main Shaft Con. Ful. Stud Blk.	.15
86	Main Shaft Con. Ful. Stud Set Scr.	.05
87	Main Shaft Con. Stud	.10
88	Main Shaft Con. Stud Nut	.05
89	Main Shaft Con. Stud Block	.10
90	Hook Shaft	.25
91	Hook Shaft Block	.55
92	Hook Shaft Block Set Screw	.05
93	Hook Shaft Block Time Screw	.05
94	Hook Shaft Feed Cam	.45
95	Hook Shaft Feed Cam Set Screw	.05
96	Hook Shaft Feed Cam Time Screw	.05
97	Hook	3.75
97½	Hook Guard	.25
98	Hook Pin	.05
100	Hook Guard Screw	.05
101	Bobbin Race Comp.	2.50
102	Bobbin Race Stud	.20
103	Bobbin Holder Spring	.05
104	Bobbin Case Stop Pin	.05
105	Bobbin Case	1.25
107	Bobbin Case Tension Spring	.10
108	Bobbin Case Ten. Spring Scr.	.05
108½	Bobbin Case Ten. Spr. Adj. Scr.	.05
109	Bobbin Race Stop	.35
110	Bobbin Race Stop Screw	.05
111	Bobbin Complete	.05
112	Feed Rocker	.35
112½	Feed Rocker Hub	.10
113	Feed Rocker Screw	.05
114	Feed Rocker Stud	.05
115	Feed Rocker Stud Roll	.05
116	Feed Bar	.35
117	Feed Point	.65
118	Feed Point Screw	.05
119	Eccentric Lever	.10
120	Eccentric Lever Screw	.05
121	Eccentric Lever Adj. Screw	.05
122	Eccentric Lever Spring	.10
122½	Feed Bar Stud Head	.10
23	Feed Bar Stud	.10
123½	Feed Bar Stud Set Screw	.05
4	Feed Bar Stud Sleeve	.10
	Feed Bar Spring	.10
-127	Feed Bar Link and Stud	.15
	Feed Bar Adj. Link	.10

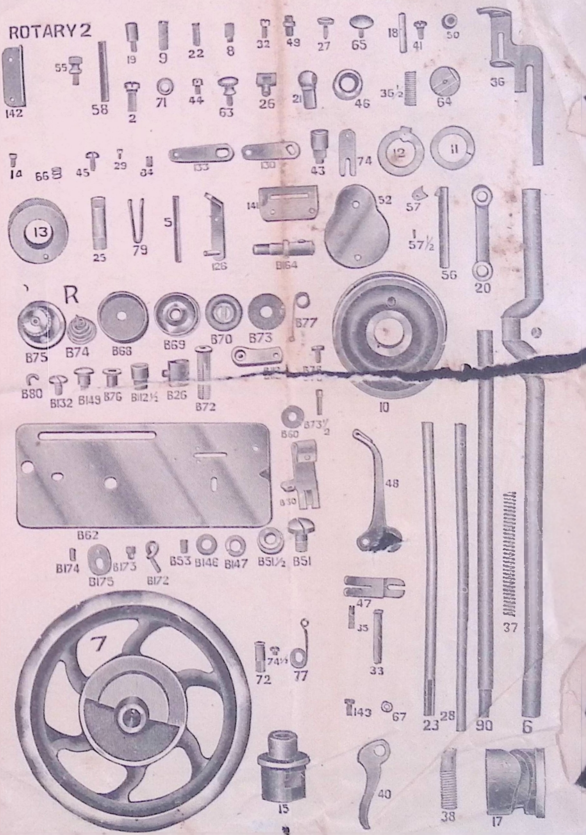
No	Name	Price
129	Feed Bar Adj. Link Screw	.05
130	Stitch Regulator Front Lever	.15
131	Stitch Reg. Lever Rod	.25
132	Stitch Reg. Rear Lever Screw	.05
133	Stitch Reg. Gear Lever	.15
134	Stitch Reg. Lever Connection	.10
135	Stitch Reg. Lever Con. Scr.	.05
136	Stitch Reg. Lever	.20
137	Stitch Reg. Lever Handle	.05
138	Stitch Reg. Lever Stud	.05
139	Stitch Reg. Frict. Washer	.05
140	Stitch Reg. Lever Con. Stud Nut	.05
141	Stitch Reg. Index Base Plate	.05
142	Stitch Reg. Index Plate	.10
143	Stitch Reg. Index Plate Screw	.05
144	Needle Plate	.65
145	Needle Plate Screw	.05
146	Stitch Reg. Rear Lever Washer	.05
147	Stitch Reg. Rear Lever Spr. Washer	.05
148	Hook Cover	.35
149	Hook Cover Screw	.10
150	Hook Cover Stud Washer	.05
151	Hook Cover Stud Nut	.05
152	Cloth Guide Screw	.05

No.	Name	Price
153	Bed Latch	.10
154	Bed Latch Screw	.05
155	Bed Latch Spring	.05
156	Bed Latch Plunger	.10
157	Bed Latch Plunger Pin	.05
157½	Spooler Complete	1.50
158	Spooler Frame	35
159	Spooler Release Lever	.12
160	Spooler Release Lever Washer	.15
162	Spooler Release Lever Screw	.05
163	Spooler Release Lever Spring	.10
164	Spooler Spindle	.20
164½	Spooler Spindle Expan. Screw	.05
165	Spooler Spindle Pulley	.10
166	Spooler Frame Screw	.10
167	Cloth Guide	.10
168	Quilter	.10
169	Shuttle Screw Driver	.10
170	Screw Driver	.15
171	Hemmer Foot	.30
172	Spooler Thread Guide	.05
173	Needle Bar Timer Screw	.05
174	Connecting Stud Washer Pin	.05
175	Connecting Stud Washer	.05

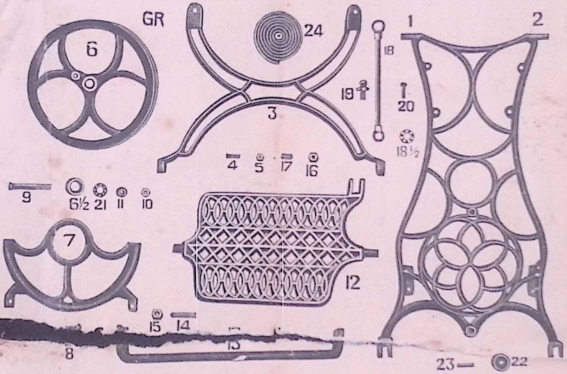
ROTARY I


97½
108½
83½
123½
82½

ROTARY 2


36½
B164
57½
R
B75
B74
B68
B69
B70
B73
B77
B80
B132
B149
B76
B112½
B26
B72
B12
B78
B60
B73½
B62
B30
B174
B175
B173
B172
B53
B146
B147
B51½
B51
74½

PRICE LIST OF STAND PARTS



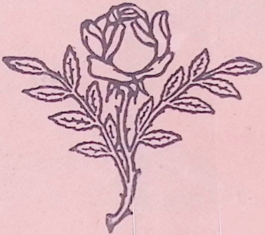
This List supersedes all others of previous date

No.	Name	Price
1	Right Leg	$2.75
2	Left Leg	2.75
3	Brace	1.20
4	Brace Bolt and [illegible]	.10
6	Wheel	1.75
6½	Wheel Cup	.10
7	Wheel Guard	.70
8	Wheel Guard Screw	.10
9	Wheel Stud	.25
10	Wheel Stud Nut	.10
11	Wheel Stud Cone	.10
12	Treadle	1.50
13	Treadle Support	.40
14	Treadle Center Screw	.10
15	Treadle Cen. Screw Nut	$.10
16	Treadle Pitman Center Screw Nut	.10
17	Treadle Pitman Center Screw	.10
18	Pitman complete	.75
18½	Pitman Ball retainer with balls	.20
19	Pitman Ball Stud	.15
20	Pitman Ball Stud Adj. Screw	.10
21	Ball Retainer complete with balls	.10
22	Caster	.10
23	Caster Pin	.05
24	Belt	.45

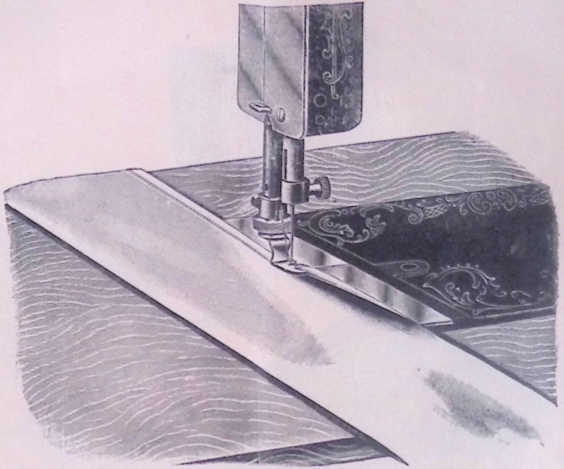
When ordering parts for the stand, always state in the order they are for the Stand, and give name as well as the number of the part wanted.

2M-2-25-Irwin

DIRECTIONS FOR USING
Steel Attachments



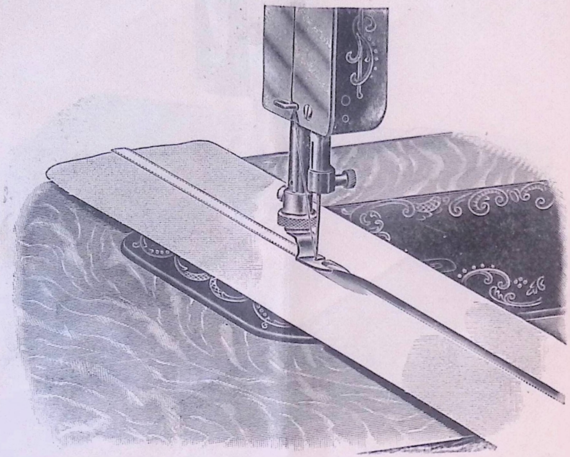
ROTARY



NARROW HEMMING

REMOVE the presser foot and insert in its place the foot hemmer. Raise the presser bar lifter to the right, clip off the right hand corner of the cloth and turn up the edge about one-quarter of an inch, so as to enable it to pass easily into the scroll of the hemmer, push it forward to the needle, let the hemmer down and start the machine, gently holding back on the work to keep it smooth and allowing the edge of the goods to pass between the thumb and forefinger of the right hand while it is being hemmed, keeping the goods rolled up on the edge as it passes into the hemmer. The latter should be kept just full. If too much cloth passes in it will make a rough and clumsy hem, or the goods will be crowded out of the hemmer. If too little, the raw edge will not be turned in.

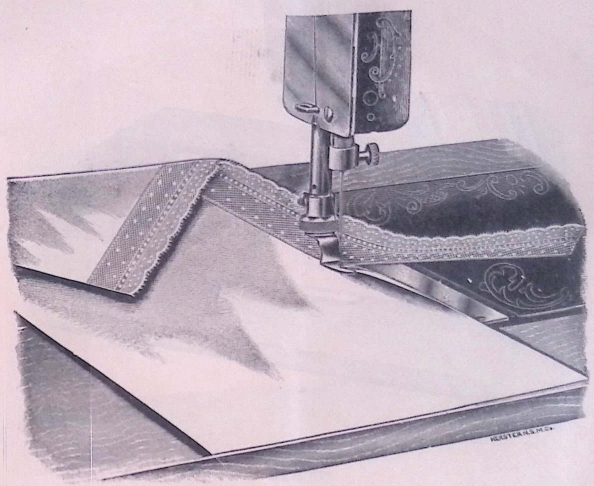
In hemming a curve on flannel or very elastic goods, draw gently on the edge being hemmed, resisting the feed slightly, and guide the work carefully. The stitch may be made close to the edge, or away from it by loosening the screw at the back of the attachment holder and swinging the hemmer slightly to the right or left.



FELLING

THE narrow hemmer and feller are the same. If the hemmer is attached it can be used in place of the presser foot in running up a seam. Sew together two pieces of cloth with the under edge projecting between one-eighth and one-quarter of an inch beyond the upper edge, then trim the edges if necessary, leaving enough goods between the row of stitching and the edges to fill the hemmer and turn it nicely, open the work flat, wrong side up, and trim the corner of the same slightly, then push the goods into the feller until the needle is reached. Lower the feller on the feed and start the machine. The feed will carry the seam through without assistance, making a complete fell from the beginning. There is no necessity of touching the goods at all, but just as well to keep them smoothed out nice and flat.

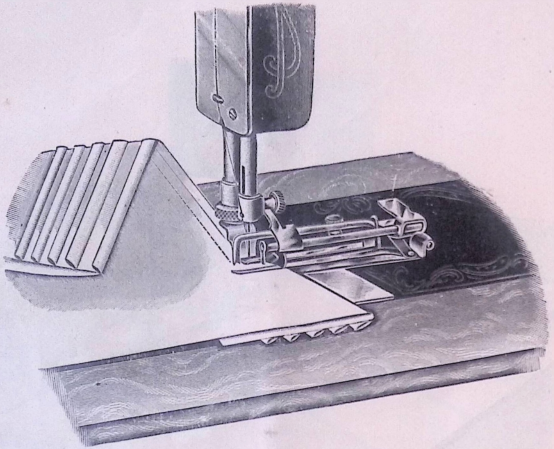
The positive double feed makes this variety of work a special feature of this machine.


H.R.STEARNS.M.Co.

HEMMING AND SEWING ON LACE

One Operation

THE hemmer and feller which accompanies this machine is made with a slot for the needle to pass through instead of a round hole as in most of the attachments. This slot is to enable the operator to make a hem and sew on lace at the same time. Proceed as follows: First start a narrow hem, and when the goods are well under control and passing smoothly into the hemmer, stop the machine, raise the hemmer with presser bar lifter, raise the needle to its highest point, and then carefully pass the end of the lace through the slot in the side of the hemmer, carrying it under the back of the hemmer and on top of the hem. Then lower the hemmer and proceed as in ordinary hemming. Guide the lace over the front of the hemmer, keeping it well in the slot so that the needle will catch it every time it passes into the goods.



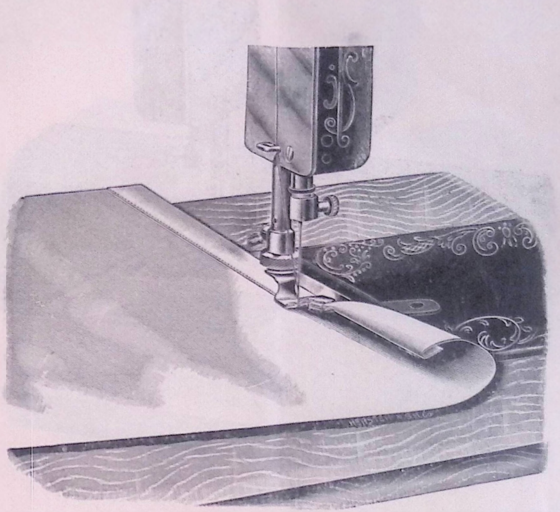
TUCKER

SLIP the fork of the tucker into the attachment holder on the presser bar, and with the screw fasten it down firmly, being careful to have the needle go through the needle hole in the tucker frame. The tuck marker is operated by the neck of the needle clamp striking in the tuck lever.

The rear scale of the tucker indicates the width of the tucks to be made, and the front scale indicates the distance between the different tucks.

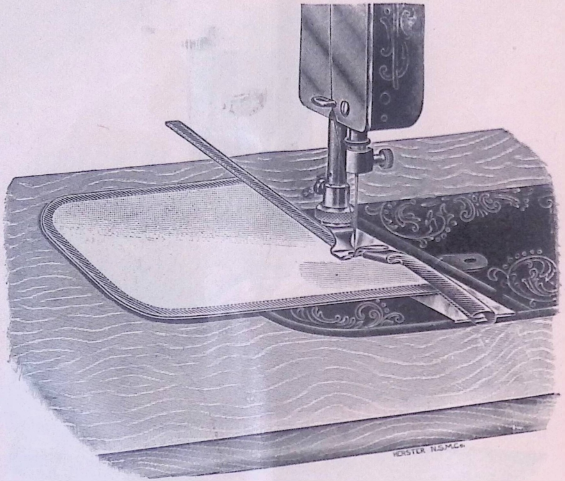
To have tucks that just meet, set rear scale at Figure "1" and front scale at Figure "2", etc., etc. To have tucks that overlap, set the front scale at a lower figure than the back, and to have tucks separated, set the front scale at a higher figure than the back.

Fold the cloth at the place where the first tuck is desired, and place it under the tucker lever and the presser foot, with the folded edge to the right and against the upright guide of the tucker. The tucker lever and creaser mark the cloth for the next tuck, and after the first tuck is completed the cloth should be folded along this mark and placed as before, and so on.



WIDE HEMMING

WITH each machine is furnished four hemmers of assorted widths. They are called foot hemmers because they are fastened to the presser bar of the machine, the same as the regular sewing foot. Select the width of hemmer that you desire to use, and attach it to the machine as shown above. You will readily see that it can be adjusted to the right or left a little, so as to stitch as close to the edge of the hem as desired. By loosening the set screw of the attachment holder and swinging the hemmer to desired position. Take the cloth in both hands, the right hand in front of the hemmer, and the left, behind. Insert the edge of the goods in the scroll of the hemmer and draw it back and forth a few times, while gradually feeding the cloth into the hemmer, so as to fill the scroll completely. When you have the hemmer full, draw the cloth back toward you to start the hem near the end. Let down the presser foot and proceed as in narrow hemming.

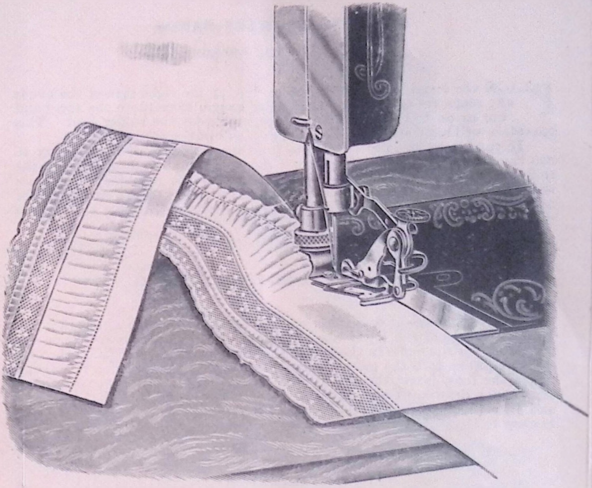

HERSTER N.S.M.Co.

BINDING

THE foot binder resembles the foot hemmers, except that it has a double scroll. Remove the presser foot from the machine and attach the binder in its place in the same manner as instructed for the narrow hemmer.

If possible always use binding cut on the bias and ⅞ths of an inch wide; for straight binding it is not necessary to have the binding so cut, but it is nevertheless preferable. The binding should be inserted into the scrolls of the binder until it has passed through and the end comes under the needle, then the material to be bound placed between the folds of the scrolls and the binder lowered; then start the machine, feed the binding into the scrolls with the right hand and guide the goods with the left hand. The only care required being to keep the goods well between the scroll and to keep the binding from becoming twisted.

In binding scallops, it is necessary to hold the goods being bound a little more firmly than the binding itself. This will prevent the goods being drawn or puckered by the binding, and after binding around the curve of one scallop stop the machine with the needle in the goods, then fold the elbow or angle of the following scallop, so as to form as nearly as possible a straight line with the one just bound, and then continue the binding.



RUFFLING OR GATHERING

IN attaching the ruffler, raise the needle to its highest point, remove the presser foot by loosening the milled edge nut of the attachment holder. Raise the operating arm of the ruffler and place the jaw astride the stem of the needle clamp, raise the ruffler and place the jaws of the frame into the attachment holder in the same manner as the presser foot, then screw the milled edge nut down firmly, taking pains to set the ruffler so that the needle will pass through the center of the needle hole.

The fullness of the gathers is controlled by the adjusting screw in the fulcrum of the operating lever; turning this screw to the right decreases the fullness of the gathers, to the left increases the fullness. It is always best to regulate the length of stitch to correspond with the fullness of the gathers, especially when making scant gathers be sure to have the stitch adjusted short.

For plain or single ruffling, insert the edge of the cloth to be ruffled between the upper and under plates of the ruffler, until the edge of the cloth is under the needle, then start the machine and feed the goods straight through.

For making ruffling on a band, insert the band in the slots of the front of the ruffler and carry the band under the separator blade and next to the feed on the machine, then place the cloth to be ruffled the same as for a plain ruff

RUFFLING BETWEEN BANDS

As for Making Aprons

PLACE the lower band in the ruffler, having the right side of the goods up; place the apron into the ruffler gauge, then place the top band over or on top of the ruffler gauge and under the ruffler foot. This operation will blind stitch the band on each side of the apron.

If you desire to edge stitch the band on each side, it is necessary to use the shirring plate for the lower band and run the apron through the ruffler from the right side or under the arm of the machine; then place the top band with the edge folded through the gauge shown on the ruffler nearest to the needle. For this work it is desirable to have the feed or stitch set at Figure 12.

RUFFLING AND SEWING IN PIPING

IT is most convenient to do this work from the upper side, although it can be done from the lower also, by using the shirring plate. Place the goods for the ruffle in the ruffler the same as for plain ruffling, then insert the piping into the gauge nearest the ruffle gauge, drawing it through under the foot, insert the folded edge of the band into the gauge nearest the needle, drawing it also under the foot. You will notice that the band and piping gauge is made adjustable to the right or left, so you may stitch as close to the edge as desired.

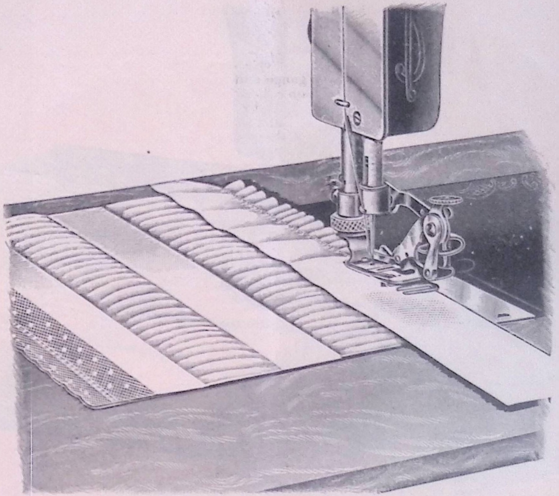
REMARKS

SHOULD the crimping blade need to be sharpened, never file or grind it from the bottom side, but always from the top. It should be filed or stoned on an angle, like the edge of a chisel.

The best work can be done when the crimping blade carries the cloth just beyond the needle as each crimp or pleat is formed.

HEMSTITCHING

FOLD a blotting paper (or other soft paper), which can be readily torn, until you get a thickness corresponding to the opening desired in the hemstitching; put one of the pieces of goods under the paper and the other above, then place all under the presser foot and sew through them. After being sewed, both pieces will be doubled back and forth to crease them well exactly on the line of stitches. Then fold all four edges in the same direction, and hold firmly while you tear out the paper. Remove the other half of the paper and open the hem stitching. One edge of each or either piece may be cut and passed through the hemmer, or a row of stitching can be passed longside the hemstitch and the double edge finished off as you choose.

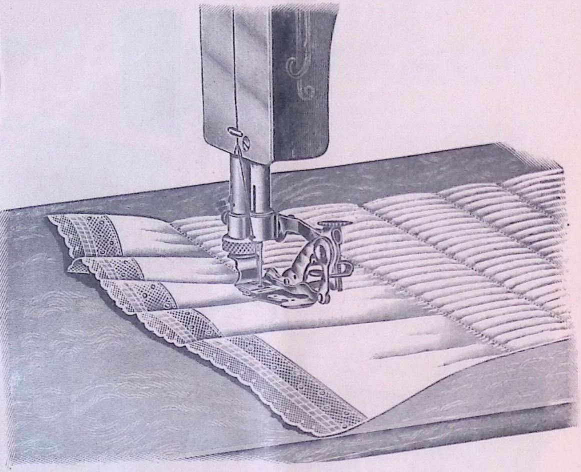


PUFFING

ALL puffing is done with the ruffler, which attachment should be put in position on the machine as instructed under the head of ruffling.

To make puffing, insert the band into the gauge or slot in the separator plate below the crimper plate, the same as for ruffling on a band, place the cloth to be puffed between the plates, the same as for a single ruffle, then proceed and gather one side, then reverse the goods, commencing at the opposite end and opposite edge, using a band for the new edge same as the first one. This stitches the band on both sides of the ruffle, and makes a handsome piece of puffing. The operation may be repeated as many times as required.

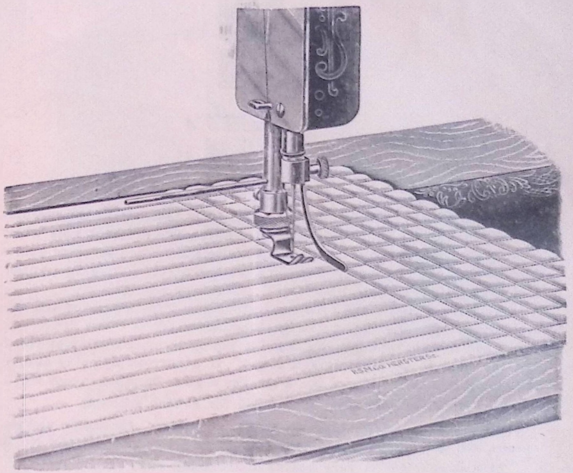
For scalloping, muslin cut lengthwise of the cloth and one inch wide is required; fold or double this strip thus producing a folded piece one-half inch in width, insert the cloth or band to which this scalloping is to be attached in the same manner as for puffing. Set the feed of the machine to produce a long stitch and adjust the ruffler very full so as to form pleats, then start sewing and swing the folded strip from side to side, keeping time with the machine; if the scalloping is made about 8 or 9 pleats to each scallop it is a nice size



SHIRRING

SHIRRING is done with the same attachment used for ruffling, and directions for placing the attachment in position will be found under that heading. Before placing the ruffler, the separator blade should be removed. To do this loosen the little thumb nut which is at the front end of the frame; drop the front end of the separator blade downward and draw it forward. Attach the under braider in position by placing the small wing in the oil hole in needle plate, then open the bobbin case cover and close over the large wing on left of under braider—thereby holding it firmly in position. See illustration. The object of using the shirring plate instead of the separator plate on the ruffler, is to permit the shirring of the work of any width. To produce the work the goods should be inserted same as for a plain ruffle, the presser bar lowered and the stitching commenced. It is always best, to run a small tape underneath the goods, this greatly strengthens the work. The tape should be run through the guides in the shirring plate.

The fullness of the shirring is controlled in the same manner as the fullness of a ruffle. The length of stitch should be adjusted to correspond with the fullness of the gather being produced.



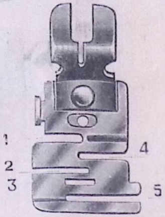
QUILTING

QUILTER is attached by passing its rounded part through the hole in the presser bar, made for that purpose, in the manner shown in the cut.

Adjust it to the right or left according to the distance required between the lines of stitching, fasten it in place by the small screw A, in the back of the presser bar, having guide or flat part of the quilter raised just far enough from the bed of the machine to allow the free passage of the work under it.

Having made the first row of stitching the desired distance from the edge, place the work so that this first row of stitching will be under, and in line with the lower edge of the quilter guide, and sew the next seam, continuing the operation as desired. This will make the lines of stitching perfectly straight and parallel.

DIRECTIONS FOR USING THE EDGE-STITCHER



THE EDGE-STITCHING ATTACHMENT is fastened to the machine in the same manner as the Presser-foot. The different slots which are numbered from 1 to 5 in the above illustration serve as guides for sewing together laces, insertions, embroideries, sewing in position folded or hemmed edges, bias-folded material or piping.

Slots No. 1 and 4 are used for sewing lace insertions, lace and embroidery or lace and tucking strips together.

When a wide piping is desired the piping is inserted in slot No. 3 and the edge to be piped in slot No. 4. If a narrow piping is desired the piping is inserted in slot No. 3 and the edge to be piped in slot No. 2.

Slot No. 5 may be used as a guide for French seaming.

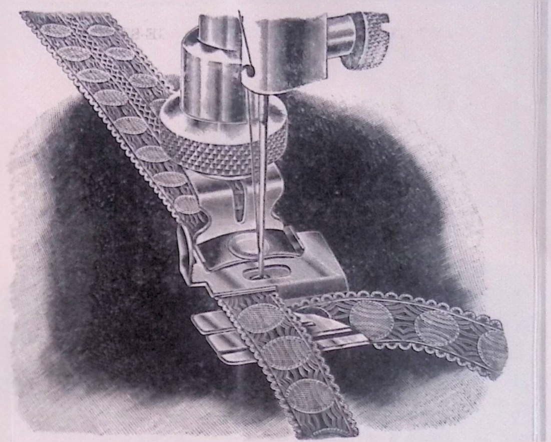
When using folded tape to finish underwear, children's clothes, aprons, etc., the tape is placed in slot No. 1 and the garment in slot No. 5.

This attachment is very useful in trimming such articles of clothing as aprons, women's and children's dresses and underwear, shirtwaists, silk blouses, boys' rompers and suits, or for articles for household decoration such as fine bureau scarfs and thin curtains, baby carriage covers and doilies.

Very beautiful effects may be obtained in yokes, guimpes, sleeves, collar and cuff sets, vestees, fichus, lace waists, camisoles, etc., by joining rows of lace insertion, alternate rows of lace and embroidery insertions, or alternate rows of tucking and lace insertion.

The folded tape, which may be purchased in any department store in all colors, qualities and widths, is indispensable to use with this Attachment. The folded piping, which also may be purchased ready turned, will exactly fit the piping slot in this Attachment.

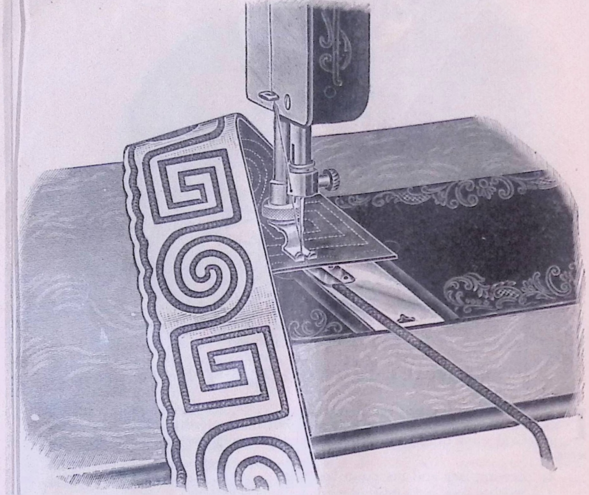
The Edge-Stitcher is adjustable for the stitching in relation to the edge of the garment, lace, etc., by means of the lug in the side. This makes it possible to stitch any material exactly on the edge.



PRACTICAL USES OF THE EDGE-STITCHER

IN the list below some of the many uses of this Attachment are given, but as you become familiar with it you will undoubtedly find many other practical ways of applying this work to your own particular sewing problems.

1. Sewing lace and insertion together.
2. Sewing lace and embroidery insertions together.
3. Piping plaits and belts for children's clothes.
4. Sewing tape to top of stocking to prevent "runners" (patented).
5. Sewing insertion on material—afterward cutting material away and turning edges back.
6. Sewing lace on the edge of a hem.
7. Setting in insertion with edges edge-stitched.
8. Sewing lace and ribbon together.
9. Covering seams with bias bands or finishing braids.
10. Sewing braid on heavy suits and dresses.
11. Sewing on bias bands for trimming—straight or curved
12. French seaming



BRAIDING

ATTACH the braider foot to the holder on the presser bar instead of the regular sewing foot. Attach the under braider in position by placing the small wing in the oil hole in needle plate, then open the bobbin case cover and close over the large wing on left of under braider—thereby holding it firmly in position. See illustration. Raise the presser bar lifter, pass the end of the braid through the slot or groove in the under braider plate, draw it through and pass it under the braider foot. Then place stamped pattern under the foot and lower it and proceed to sew, guiding the cloth with the right hand and holding the braid with the left to keep it from twisting.

Price List

Ruffler	$1.50
Tucker	1.50
Foot Hemmer Sets, including Binder	.75
Braider Foot	.25
Thread Cutter	.05
Hemmer and Feller	.30
Presser Foot	.25
Bobbin Case	1.25
Needles, all sizes, per dozen	.30
Guide Thumb Screw	.10
Oil Can	.15
Bobbins, each	.05
Screw Driver	.15
Shuttle Screw Driver	.10
Quilter	.05
Edge Stitcher	.50

GREIST